

**ABSTRACT:**

Data processing is effected in a series of temporal processing steps [S].

A processing step [S(n)] generates a result [O(n)] on the basis of a set of results [O(n-1), O(n-2), ... O(n-m)] of certain preceding processing steps [S(n-1), S(n-2), ... S(n-m)].

An example of such a data processing is the contextual arithmetic decoding which forms part  
5 of the MPEG4 standard.

The following characteristic features enable implementations to be realized at comparatively low cost. A processing step [S] is performed in two sub-steps: a preparation sub-step [SA] and finishing sub-step [SB]. In the preparation sub-step [SA] an intermediate result [I] is determined on the basis of an incomplete set of results in which, in comparison with the set of results on the basis of which the result is to be calculated, at least the result of the nearest preceding processing step is missing. In the finishing sub-step [SB] the result [O] is determined on the basis of the intermediate result [I] and the result of the nearest preceding processing step and other results which are missing in the incomplete set of results, if any.